



IOWA'S
BARRIERS TO
PreNATAL care
PROJECT

2019 Data Summary

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OVERVIEW

The findings in this summary are based on the Iowa Barriers to Prenatal Care project. Ongoing since 1992, the purpose of this project is to obtain brief, accurate information about women delivering babies in Iowa hospitals. Specifically, the project seeks to learn about women's experiences getting prenatal or delivery care during their current pregnancy. Other information is included which may be pertinent to health planners or those concerned with the systematic development of health care services.

This project is a cooperative venture of all Iowa's maternity hospitals, the University of Northern Iowa center for Social and Behavioral Research, and the Iowa Department of Public Health. The Robert Wood Johnson Foundation funded the first three years of this project. The current funding is provided by the Iowa Department of Public Health. The Director is Dr. Mary Losch, University of Northern Iowa Center for Social and Behavioral Research. The Coordinator for the project is Rodney Muilenburg.

The questionnaire is distributed to all seventy maternity hospitals across the state of Iowa (currently about 65). Nursing staff or those responsible for obtaining birth certificate information in the obstetrics unit are responsible for approaching all birth mothers prior to dismissal to request their participation in the study. The questionnaire takes approximately ten minutes to complete. Completed questionnaires are returned to the University of Northern Iowa Center for Social and Behavioral Research for data entry and analysis. Returns are made monthly, weekly, or biweekly depending on the number of births per week in a given hospital. Except in the case of a mother who is too ill to complete the questionnaire, all mothers are eligible to be recruited for participation.

The present yearly report includes an analysis of large Iowa cities, a trend analysis of the last ten years, and a frequency analysis of all variables included in the 2019 questionnaire. Unless otherwise noted, all entries reflect percentages. Please note that, because percentages were rounded, total values may not equal 100%. Data presented are based upon 2019 questionnaires received to date (n = 19,007). All analyses reflect unweighted percentages of those responding.

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Analysis of Selected Variables by City

The present section compares the findings across the following cities for all 2019 data received (n = 11,405). It is important to note that location of hospital where mothers gave birth is the basis for analysis, not the mothers' home zipcode.

DM = Des Moines (n = 5,152)
 QC = Quad Cities (n = 832)
 SC = Sioux City (n = 491)
 WL = Waterloo (n = 1,654)
 CR = Cedar Rapids (n = 1,511)
 DB = Dubuque (n = 685)
 IC = Iowa City (n = 1,080)

*all data provide in the following tables reflect percentages unless otherwise noted.

Mother/Family Characteristics

Overall, the age of the mothers in the cities closely matched the state data. Dubuque had the lowest number of mothers between the ages of 20 to 25 (16%) and the highest percentage of mothers between the ages of 26 to 30 (43%; see Table A1). Iowa City has the largest percentage of mothers over 35 (14%).

Table A1. Mother's Age

	STATE	DM	QC	SC	WL	CR	DB	IC
<18 years	01	01	01	01	01	01	<1	01
18 – 19 years	03	02	03	02	03	02	02	01
20 – 25 years	24	21	26	26	23	22	16	17
26 – 30 years	37	37	33	34	38	35	43	38
31 – 35 years	26	28	28	26	25	29	28	29
> 35 years	10	12	08	12	11	10	11	14

Sioux City had the largest percentage of Hispanic mothers (22%) and American Indian mothers (5%). Dubuque had the lowest percentage of Black mothers (3%) and Waterloo had the highest percentage of Black mothers (11%; see Table A2).

Table A2. Race Ethnicity

	STATE	DM	QC	SC	WL	CR	DB	IC
Hispanic	08	08	13	22	05	04	03	07
Non-Hispanic	92	92	87	78	95	96	97	93
White	90	87	86	86	85	89	94	87
Black	06	08	09	06	11	08	03	08
Asian/Pacific Islander	03	04	03	03	04	03	03	04
American Indian	1	01	01	05	01	<1	<1	01

As shown in Table A3, the Quad Cities had the lowest proportion of mothers born in Iowa (50%) while Waterloo and Cedar Rapids had the highest percentage of mothers who were born in Iowa (70%). Sioux City had the highest percentage of mothers who were born outside of the U.S. (12%).

Table A3. Mother's Place of Birth

	STATE	DM	QC	SC	WL	CR	DB	IC
In Iowa	65	65	50	60	70	70	67	60
In U.S., outside of Iowa	27	25	40	28	22	25	28	30
Outside of U.S.	08	10	10	12	08	05	04	10

In general, mothers throughout the major cities attain similar levels of education as compared to educational attainment across the state. Mothers in Iowa City had the highest proportion completing graduate school (23%). Sioux City had the highest percentage (31%) of mothers attaining a high school education or less. (see Table A4).

Table A4. Education

	STATE	DM	QC	SC	WL	CR	DB	IC
<High School	07	05	08	09	09	07	03	05
High School	21	19	22	22	19	17	12	14
Some College	33	30	34	33	32	34	30	28
College	27	32	23	24	29	28	37	31
Graduate School	12	14	13	11	11	14	18	23

The major cities tend to have a higher proportion of mothers reporting an annual income of \$70,000 or more compared to the state as a whole. Quad Cities and Waterloo had the highest proportion of mothers (14% and 13% respectively) reporting an annual income of under \$10,000 (see Table A5).

Table A5. Annual Family Income Last Year

	STATE	DM	QC	SC	WL	CR	DB	IC
Under \$10,000	11	09	14	11	13	10	06	08
\$10,000 - \$19,999	08	07	09	09	08	07	05	07
\$20,000 - \$29,000	09	07	10	10	07	10	06	08
\$30,000 - \$39,999	08	08	10	09	08	08	06	06
\$40,000 - \$49,999	07	07	07	10	08	06	05	07
\$50,000 - \$59,999	07	06	06	08	07	08	09	07
\$60,000 - \$69,999	07	06	06	07	08	07	09	09
\$70,000 or more	42	51	39	37	41	44	54	49

During Pregnancy

A majority of women in the major cities did visit the dentist during their pregnancy; however, a slightly lower percentage of women visited the dentist in the Quad Cities (55%) and Sioux City (53%) as compared to the state (57%; see Table A6).

Table A6. Visited a Dentist

	STATE	DM	QC	SC	WL	CR	DB	IC
No	43	41	45	47	39	37	30	41
Yes	57	59	55	53	61	63	70	59

Mothers in Dubuque were most likely to report not being able to take time off work or being too busy to visit the dentist (16%) compared to the other major cities. Mothers in the Quad Cities had the highest percentage (14%) reporting that they did not think it was important to visit the dentist (see Table A7).

Table A7. Reasons for Not Visiting Dentists

	STATE	DM	QC	SC	WL	CR	DB	IC
Didn't think it was important	11	12	14	12	11	12	05	11
No insurance/Cost	10	09	08	10	09	08	11	09
Wouldn't accept Medicaid/Title 19	07	04	05	08	07	06	07	05
Nervous/Afraid	06	05	06	06	06	07	09	04
Didn't have transportation	02	01	02	01	02	02	01	01
Couldn't take time off work/Too busy	10	10	12	12	10	11	16	09
Doctor/Nurse told me not to go	<1	<1	01	<1	<1	<1	<1	<1
Dentist office said to wait until after	01	01	02	02	01	<1	<1	02
Read/Heard not safe to go when pregnant	02	02	02	02	02	02	<1	02
Didn't routinely go when I wasn't pregnant	23	22	22	22	21	25	19	23
Went before pregnancy	24	26	27	21	25	22	33	25
Other	04	03	03	05	05	05	06	04

Quad Cities (21%) had the highest percentage of women reporting smoking in the last two years while Dubuque (11%) had the lowest percentage (see Table A8).

Table A8. Smoked in Last Two Years

	STATE	DM	QC	SC	WL	CR	DB	IC
Not smoked in last 2 years	19	16	21	18	19	19	11	14
Smoked in last 2 years	81	84	79	82	81	81	89	86

Iowa City mothers had the highest percentage (66%) not smoking any cigarettes in the last three months of their pregnancy. Forty-six percent of mothers in Waterloo reported smoking one to ten cigarettes per day during the last three months of their pregnancy (see Table A9).

Table A9. Cigarettes Smoked Per Day in Last 3 Months of Pregnancy

	STATE	DM	QC	SC	WL	CR	DB	IC
Zero in last three months of pregnancy	54	56	52	57	50	57	64	66
1-10 per day in last three months of pregnancy	41	39	42	36	46	37	31	29
11-20 per day in last three months of pregnancy	05	05	05	06	03	06	04	05
>20 per day in last three months of pregnancy	01	<1	01	01	01	<1	01	01

Sioux City and the Quad Cities (30%) had the highest rate of unintended pregnancy (see Table A10). Women in Dubuque had the lowest reports of unintended pregnancies (22%). Comparing unintended pregnancies across the major cities (mistimed/unwanted), Des Moines (75%), Sioux City (76%), and Waterloo (77%) had the highest proportion of women reporting an unintended pregnancy while not using birth control compared with a state average of 72% (see Table A11).

Table A10. Pregnancy Intent

	STATE	DM	QC	SC	WL	CR	DB	IC
Intended	72	74	70	70	72	74	78	77
Unintended	28	26	30	30	28	26	22	23

Table A11. Unintended Pregnancy, Birth Control Use

	STATE	DM	QC	SC	WL	CR	DB	IC
Unintended - no birth control used	72	75	73	76	77	70	67	70
Unintended - birth control used	28	25	27	24	23	30	33	30

Statewide, the three most common stressors were: moving homes (20%), close friends or family dying (15%), and close family members being sick and hospitalized (13%). In the city comparison, the Quad Cities had the highest reports of mothers moving homes (22%). Mothers in Cedar Rapids and Iowa City (16%) were most likely to report experiencing a friend or family member die during their pregnancy more often than the other major cities. Iowa City mothers also reported experiencing more close family members being sick and hospitalized (15%) compared to the other cities (see Table A12).

Table A12. Possible Stressors during Pregnancy

	STATE	DM	QC	SC	WL	CR	DB	IC
A close family member was very sick and had to be hospitalized	13	13	11	12	11	13	14	15
I got separated or divorced from my husband or partner	03	02	03	05	02	02	02	02
I moved to a new address	20	20	22	18	19	21	16	19
I was homeless (had to sleep outside, in a car, or in a homeless shelter)	01	01	01	01	01	01	<1	01
My husband or partner lost their job	04	04	05	05	03	04	03	03
I lost my job	05	05	06	06	05	05	02	04
I argued with my husband or partner more than usual	08	08	10	10	09	07	07	08
My husband or partner said they didn't want me to be pregnant	02	02	02	02	02	02	01	01
I had a lot of bills I couldn't pay	06	06	08	10	07	05	04	05
I was in a physical fight	01	<1	01	<1	<1	01	<1	<1
My husband or partner or I went to jail	02	01	02	02	02	02	02	01
A family member or close friend has a bad problem with drinking or drugs	04	03	05	04	03	04	03	04
A family member or close friend died	15	14	13	13	13	16	14	16

The major cities had similar percentages of respondents reporting they had been diagnosed with depression during their pregnancy. Cedar Rapids had the highest rate of respondents diagnosed with depression before their pregnancy (14%; see Table A13).

Table A13. Diagnosed with Depression

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	03	03	04	04	03	04	01	03
No	85	87	86	87	85	82	89	86
No – Diagnosed before pregnancy	11	10	10	10	12	14	09	11

Iowa City had the highest percentage of mothers who took prescription medicine for depression during their pregnancy (58%). Dubuque had the highest percentage of mothers (15%) deciding on their own to not take prescription medicine for depression during their pregnancy (see Table A14).

Table A14. Take Prescription Medicine for Depression

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	52	54	49	55	45	52	49	58
No	32	32	38	32	40	32	33	29
No – Doctor told me to stop	05	03	04	03	04	05	03	03
No – I decided to stop	11	11	08	09	11	10	15	10

Statewide about three in ten mothers received counseling for depression during their pregnancy (29%). Across cities, Iowa City (39%) had the highest percentage of mothers who had counseling for depression during their pregnancy and Sioux City had the lowest (20%) (see Table A15).

Table A15. Counseling for Depression

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	29	31	29	20	36	26	24	39
No	71	69	71	80	64	74	76	61

Quad Cities had the highest proportion (6%) of mothers reporting someone other than themselves smoked in the house daily during the pregnancy. Iowa City had the highest percentage of mothers (96%) reporting no one smoking in their home during their pregnancy (see Table A16).

Table A16. Someone Smoking in the Home

	STATE	DM	QC	SC	WL	CR	DB	IC
Daily	04	03	06	03	04	04	03	02
Weekly	01	01	01	01	01	01	01	01
Monthly	<1	<1	<1	<1	<1	<1	<1	<1
Less than monthly	01	01	02	01	01	01	01	01
Never	93	94	91	95	93	93	95	96

Prenatal Care

How to monitor changes in the baby’s activity (82%) and medicines that are safe to take during pregnancy (81%) were the most frequently reported types of information received during pregnancy. Iowa City and the Quad Cities had an even higher percentage of mothers compared to the state and other major cities reporting receiving information about monitoring changes in the baby’s activity (87%). Mothers in Des Moines (63%), who smoked in the past 2 years, were less likely than mothers in the other locations to report receiving information about how smoking may affect their baby (see Table A17).

Table A17. Information Provided by a Health Care Professional during This Pregnancy

	STATE	DM	QC	SC	WL	CR	DB	IC
How smoking during pregnancy may affect baby (overall)	51	45	57	52	53	50	49	50
How smoking during pregnancy may affect baby (smoked in the past 2 years)	71	63	75	73	74	68	68	73
Breastfeeding my baby	68	61	73	70	71	65	73	73
How drinking during pregnancy may affect baby	49	44	56	51	52	49	50	50
Using a seatbelt during pregnancy	42	35	53	41	40	42	38	44
Medicines safe to take during pregnancy	81	82	84	79	78	79	84	86
How using illegal drugs may affect baby	40	34	46	42	44	42	39	40
How using prescription medications may affect baby	48	45	51	48	51	48	51	53
Doing tests on me/baby to screen for birth defects/diseases	75	75	78	71	75	76	77	81
What to do if I feel depressed during pregnancy/after baby born	57	54	63	50	59	58	53	64
Physical abuse to women by their husbands or partners	30	25	37	30	33	30	29	33
Signs and symptoms of preterm labor	62	58	70	61	60	58	63	68
What to do if labor starts early	66	63	72	65	64	62	68	73
How to monitor changes in baby’s activity during pregnancy	82	84	87	81	78	81	83	87
What to do if baby had not felt as active as expected	72	72	78	71	69	71	76	76
The Zika Virus	32	29	36	33	26	29	53	33
Not provided with any information listed above	04	04	04	06	04	05	04	03

The Quad Cities location had the highest percentage of mothers who were tested for HIV/AIDS during their pregnancy (65%) and Des Moines had the highest percentage of mothers reported that they were not tested (42%; see Table A18).

Table A18. HIV/AIDS Testing

	STATE	DM	QC	SC	WL	CR	DB	IC
Tested	60	57	65	63	60	63	46	61
Not tested	38	42	33	35	37	36	51	37
Offered but not tested	02	02	02	03	03	02	03	02

Similar to HIV/AIDS testing, the Quad Cities birth location had the highest percentage of mothers (68%) tested for syphilis during their pregnancy; Dubuque had the lowest percentage (42%) of mothers reporting being tested (see Table A19).

Table A19. Syphilis Testing

	STATE	DM	QC	SC	WL	CR	DB	IC
Tested	57	55	68	59	56	59	42	60
Not tested	42	44	31	39	41	40	56	38
Offered but not tested	02	01	01	02	03	01	02	02

Most mothers statewide (56%) reported that they were able to travel to their prenatal care visits in under 15 minutes; however, mothers giving birth in Iowa City were least likely to report the ability to travel to their provider in under 15 minutes (45%) compared to other major cities. Higher percentages of mothers in Iowa City also reported travel times in the 31 to 60 minute range (20%) and in the greater than 60 minute category (8%; see Table A20).

Table A20. Travel Time to Prenatal Care Visits

	STATE	DM	QC	SC	WL	CR	DB	IC
<15 Minutes	56	56	63	66	57	63	56	45
16-30 Minutes	28	30	24	19	27	24	24	26
31-60 Minutes	13	11	13	13	14	12	18	20
>60 Minutes	02	03	01	02	02	01	02	08

Hospital Care

Mothers giving birth in Iowa City had the highest reports of encouragement to breastfeed (89%) following the birth of their baby and mothers in Sioux City and Cedar rapids had the highest reports of not receiving encouragement to breastfeed (16%) following the birth of their baby (see Table A21).

Table A21. Encouraged to Breastfeed by Hospital Staff

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	84	84	86	82	82	82	82	89
No	13	13	11	16	15	16	15	10
I don't remember	03	03	03	02	03	02	02	02

Mothers in Sioux City had higher reports of receiving information about action steps you can take when their baby cries (68%), how to lay their baby down to sleep (68%), and the dangers of shaking an infant (74%) compared to those giving birth in other major cities and the state as a whole. Only about a third of those giving birth in the Quad Cities and Dubuque reported being given information on the dangers of shaking an infant (see Table A22).

Table A22. Information Provided by a Health Care Professional during This Pregnancy

	STATE	DM	QC	SC	WL	CR	DB	IC
Action steps to decrease frustration when my infant cries	47	35	35	68	35	58	40	39
How to lay my baby down to sleep	60	51	46	68	57	67	56	58
Dangers of shaking an infant	45	34	33	74	34	59	33	35
Did not receive information and have not scheduled time to discuss these topics	27	36	40	14	29	18	33	29

Iowa City had the highest percentage of mothers indicating that they planned to lay their baby on their back to sleep (96%). The mothers in the Quad Cities had the highest reports of no preference (7%) for the position they plan to lay their baby in to sleep (see Table A23).

Table A23. Baby's Sleep Position

	STATE	DM	QC	SC	WL	CR	DB	IC
On his or her back	94	95	90	92	94	95	95	96
On his or her side	02	01	03	03	02	02	01	01
On his or her stomach	<1	01	<1	<1	<1	01	<1	<1
No preference	04	04	07	05	04	03	04	03

Mothers in the Quad Cities reported the highest percent for planning to have the baby sleep in the same bed on a daily basis (9%); whereas mothers in Sioux City had the highest reports of never planning on having the baby sleep with anyone (88%; see Table A24).

Table A24. Plan to Have Baby Sleep in Same Bed

	STATE	DM	QC	SC	WL	CR	DB	IC
Daily	07	06	09	03	06	05	05	07
Weekly	06	04	09	04	07	06	04	06
Monthly	01	01	01	01	01	01	01	01
A few times a year	05	04	05	04	05	04	05	06
Do not plan to have my baby sleep with me or anyone else	82	84	77	88	81	83	85	81

The highest percentage of mothers reporting they were not offered the IUD/implant after giving birth was in Des Moines (93%). Mothers giving birth in Iowa City (34%) had the highest percentage reporting they were offered the IUD/implant after giving birth (see Table A25).

Table A25. Offered IUD/Implant after Birth

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	17	07	25	17	21	16	16	34
No	83	93	75	83	79	84	84	66

Of those who indicated they were offered an IUD, 53% of mothers giving birth in Cedar Rapids reported they have received or will receive the IUD/implant. Among those offered an IUD/implant, mothers giving birth in Dubuque were least likely (29%) to report they would receive one compared to the other major cities (see Table A26).

Table A26. Will Receive/Have Received IUD/Implant

	STATE	DM	QC	SC	WL	CR	DB	IC
Yes	41	40	32	34	40	53	29	45
No	59	60	68	66	60	47	71	55

Those giving birth in Iowa City reported the greatest travel times to reach the hospital at 31 to 60 minutes (27%) or greater than 60 minutes (14%) which is much higher than the next highest reporting city in those categories (see Table A27).

Table A27. Travel Time to Hospital when Delivering Baby

	STATE	DM	QC	SC	WL	CR	DB	IC
<15 Minutes	48	43	58	58	51	58	51	33
16-30 Minutes	32	37	27	24	30	26	28	26
31-60 Minutes	17	15	14	17	18	15	19	27
>60 Minutes	03	04	01	02	01	02	02	14

B. Trend Analysis of Barriers Data 2010 – 2019

All percentages in the present section reflect statewide percentages. The number of respondents has been declining over the last few years and dipped below 20,000 for the first time in the past decade in 2019.

Respondents by Year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
N =	23,511	23,934	23,674	24,634	24,696	23,212	21,928	20,919	20,035	19,007

Demographics

The number of mothers who are 26 years old or older has increased since 2010 with mothers between 26 and 30 increasing from 35% to 37%, mothers between 31 and 35 increasing from 21% to 26%, and mothers older than 35 years increasing from 7% to 10% (see Table B1).

Table B1. Mother's Age Ranges

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<18 years	02	02	02	02	01	01	01	01	01	01
18 – 19 years	06	05	05	04	04	04	03	03	03	03
20 – 25 years	30	29	29	29	28	27	26	25	24	24
26 – 30 years	35	35	35	35	35	35	36	36	37	37
31 – 35 years	21	22	22	23	24	25	25	26	26	26
>35 years	07	07	07	07	08	08	08	09	09	10

Educational attainment of participants has increased over time with smaller percentages of only completing some college (decreasing from 37% to 33%) and increasing percentages of those completing college degrees (25 to 27%) and graduate school (9% to 12%; see Table B2).

Table B2. Education

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Mother										
<High school	09	09	08	08	08	07	07	07	07	07
High school	20	20	20	20	19	20	20	21	21	21
Some college	37	36	36	36	36	35	34	34	33	33
College	25	26	26	26	27	27	27	27	27	27
Graduate school	09	10	10	10	10	11	11	12	12	12

Compared to previous years, there is a continued trend of more racial and ethnically diverse mothers. The number of White mothers has decreased slightly from 93% in 2010 to 90% in 2019 with Black mothers increasing from 4% to 6% across those same years. However, the number of Asian/Pacific Islander and American Indian mothers has not changed since 2010 (see Table B3).

Table B3. Race / Ethnicity

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Mother										
Hispanic	08	06	06	07	07	07	07	07	08	08
Non-Hispanic*	93	94	94	93	93	93	93	93	92	92
White	93	92	91	91	91	91	91	90	90	90
Black	04	05	05	05	05	05	05	06	06	06
Asian/Pacific Islander	03	03	03	03	03	03	03	03	03	03
American Indian	01	01	01	01	01	01	01	01	01	01

The percentage of mothers reporting an annual income of under \$10,000 has decreased from 14% to 11% since 2010 while the percentage of mothers reporting an annual income above \$70,000 has increased from 28% to 42% (see Table B4).

Table B4. Annual Family Income Last Year

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Under \$10,000	14	15	16	16	14	14	12	12	11	11
\$10,000 - \$19,999	11	11	11	11	10	10	09	09	08	08
\$20,000 - \$29,999	10	09	10	10	10	09	09	09	09	09
\$30,000 - \$39,999	10	09	08	08	09	09	09	08	08	08
\$40,000 - \$49,999	10	09	08	08	08	07	08	07	08	08
\$50,000 - \$59,999	10	09	09	08	09	08	08	08	08	08
\$60,000 - \$69,999	09	09	08	08	07	08	07	07	07	07
Above \$70,000	28	29	31	32	33	36	38	39	41	42

Prenatal Experiences and Care

Over the years, the percentage of mothers reporting they were not using birth control at the time of conception has increased from 84% in 2010 to 88% in 2019. There has also been a slight decrease in reported use of condoms at the time of conception from 5% to 3% (see Table B5).

Table B5. Birth Control Used at Conception

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
No birth control used	84	84	85	84	86	86	87	86	87	88
Birth control pills	07	07	07	07	06	06	06	06	06	05
Diaphragm	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Spermicidal foam/insert	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Condom	05	05	04	04	04	04	03	03	03	03
NFP / Rhythm Method	01	01	01	01	01	01	01	01	01	01
Birth control patch	01	<1	<1	<1	<1	<1	<1	<1	<1	01
Birth control injection	01	01	01	01	01	01	01	01	01	01
NuvaRing	01	01	01	01	01	01	<1	<1	<1	<1
IUD / IUC	01	01	01	01	01	01	01	01	01	01
Implant / Nexplanon	--	<1	<1	<1	<1	<1	<1	<1	<1	<1
Other	--	<1	<1	01	01	<1	01	<1	01	01

Among women not wanting a pregnancy (either mistimed/unwanted), 72% in 2019 reported that they did not use any form of birth control, which has increased from a low of 64% in 2011. The two highest reported forms of birth control used by women not desiring the pregnancy in 2019 were birth control pills (15%) and condoms (6%). The use of both birth control pills and condoms have decreased since 2010 among those not desiring pregnancy (see Table B6).

Table B6. Reported Birth Control Type among Those Not Desiring Pregnancy

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
No birth control used	65	64	66	66	66	68	70	70	72	72
Birth control pills	18	19	18	18	17	17	16	16	16	15
Diaphragm	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Spermicidal foam/insert	<1	01	<1	<1	<1	<1	<1	<1	<1	01
Condom	11	12	11	10	09	09	07	08	07	06
NFP / Rhythm Method	02	02	02	01	02	02	02	02	02	02
Birth control patch	01	01	01	01	01	01	01	01	01	02
Birth control injection	01	01	02	02	02	02	01	02	01	02
NuvaRing	02	02	02	02	01	01	01	01	01	01
IUD / IUC	01	01	01	01	01	01	01	01	01	01
Implant / Nexplanon	<1	<1	<1	<1	<1	<1	<1	01	01	01
Other	01	01	01	01	01	01	01	01	01	01

There has been a slight increase in the percentage of women reporting wanting to become pregnant at the time of conception and earlier (33% in 2010; 35% in 2019) as well as an increase in the percentage of women reporting that they wanted to become pregnant at that time (33% in 2010 to 37% in 2019). The percentage of women who did not want to become pregnant at the time but did want to sometime in the future has decreased from 30% in 2010 to 24% in 2019. The percentage of women not wanting to become pregnant at all has stayed about the same over the past 10 years (see Table B7).

Table B7. Desirability of Pregnancy

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Yes, and earlier	33	32	33	32	34	33	34	34	35	35
Yes, at that time	33	36	35	37	36	38	37	37	37	37
No, but in the future	30	29	29	28	27	26	26	25	24	24
No, nor in future	04	03	03	04	04	04	03	04	03	04

Lack of birth control use among mothers not desiring a pregnancy has increased over the past ten years especially for mistimed pregnancies (see Table B8).

Table B8. No Birth Control Use by Desirability of Pregnancy

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Yes, and earlier	97	96	97	96	97	96	97	96	97	97
Yes, at that time	95	94	95	94	94	93	94	94	94	94
No, but in the future	65	65	67	67	67	68	71	70	73	73
No, nor in future	61	57	55	61	59	62	63	62	64	65

The most common reason women reported for not using any form of birth control when not desiring a pregnancy was not trying to become pregnant but were not actively preventing the pregnancy (ambivalence) (50.2%). Around 18% of the women who did not desire the pregnancy reported their birth control failed and an increasing number indicated that they experienced physical discomfort or side effects (see Table B9a – note that this table contains a single decimal place owing to the very small percentages and only six years are included owing to a change in question).

Table B9a. Reported Reason for Not Using Birth Control When Pregnancy Not Desired

	2014	2015	2016	2017	2018	2019
Didn't want to ruin mood	1.1	1.0	1.0	1.0	1.0	2.7
Physical discomfort / side effects from birth control	8.0	8.8	10.3	10.0	11.8	12.6
Embarrassed buying or going to health care provider	0.4	0.5	0.5	0.5	0.5	0.7
Against religious beliefs	1.2	1.4	1.5	1.5	2.0	1.6
Judgement impaired	2.0	2.0	1.6	1.8	1.8	1.8
Ran out	5.7	4.4	5.1	3.8	4.8	3.4
Did not plan to have intercourse	5.9	5.4	5.7	4.7	5.3	5.0
Father wanted child / refused	1.0	0.9	0.8	0.7	0.8	1.5
Preferred method too expensive	1.9	1.4	1.0	1.1	1.0	2.2
Birth control failed	21.3	19.1	18.9	17.9	18.4	18.5
Not trying to become pregnant, not actively preventing	45.6	44.8	47.7	46.2	49.9	50.2
Thought I (or partner) could not become pregnant	8.1	9.0	8.1	8.7	9.3	11.3
Other	7.1	5.4	6.4	5.2	5.4	6.0

As seen in Table B9b, mothers in all age groups, who were not trying to become pregnant and not doing anything to actively prevent it, initially showed an increase and then a decrease in reporting this reason for not using birth control at the time of conception. Mothers 31-35 years old (27%) and over 35 years old (26%) are less likely to say this was why they did not use birth control than mothers in the younger age groups.

Table B9b. Not Trying to Become Pregnant, but Not Actively Preventing by Age Group

	2014	2015	2016	2017	2018	2019
Under 18 years old	42	45	40	42	37	39
18-19 years old	41	46	48	46	41	37
20-25 years old	39	45	46	47	39	40
26-30 years old	29	47	45	48	30	33
31-35 years old	28	45	48	46	26	27
Over 35 years old	26	42	43	43	26	26

Over time, women reporting that they thought they (or partner) couldn't become pregnant as a reason for not using birth control at the time of conception has stayed relatively consistent. The trend shows more women in the over 35 age group cited this as a reason than the other age groups. In 2019; however, women under age 18 had the highest percentage (16%) reporting this reason (see Table 9Bc – note that some cell sizes are small and range from 10 to 241).

Table B9c. Thought I (or Partner) Could Not Become Pregnant by Age Group

	2014	2015	2016	2017	2018	2019
Under 18 years old	07	10	06	11	09	16
18-19 years old	08	10	08	09	10	11
20-25 years old	07	08	07	08	07	07
26-30 years old	04	08	07	07	05	07
31-35 years old	06	09	08	09	05	07
Over 35 years old	11	18	14	17	09	11

C. 2019 Questionnaire Frequency Tables

Presented below is a frequency analysis of all variables in the 2019 questionnaire. Data presented in this section are based upon 2019 questionnaires received to date (n= 19,007). All entries reflect unweighted percentages of those mothers answering the item.

MOTHER / FAMILY CHARACTERISTICS

1. How old are you (baby's mother)?

	Frequency	Valid Percent
< 18 years	412	0.8
18 – 19 years	528	2.8
20 – 25 years	4,548	24.2
26 – 30 years	6,935	36.9
31 – 35 years	4,829	25.7
>35 years	1,816	9.7

2. Where were you born?

	Frequency	Valid Percent
In Iowa	12,253	65.5
In the US outside of Iowa	4,997	26.7
Outside the US	1,464	7.8

3. What is the highest grade or year of regular school or college that you have completed? (select only one)

	Frequency	Valid Percent
Grade school	225	1.2
Junior high	91	0.5
Some high school	1,021	5.4
12th grade or GED	3,898	20.3
Vocational school or A.A. Degree	2,698	14.2
Some college	3,538	18.7
Bachelor's degree	5,193	27.4
Master's degree	1,684	8.9
Doctoral/Professional degree	589	3.1

4. Which one of the following **best** describes your **racial background**? (select only one)
Are you...

	Frequency	Valid Percent
Black	16,751	89.9
White	1,138	6.1
Asian/Pacific Islander	590	3.2
American Indian or Native Alaskan	145	0.8

5. Which one of the following **best** describes your **ethnic background**? Are you...

	Frequency	Valid Percent
Hispanic	1,465	7.8
Non-Hispanic	17,320	92.2

6. What was the general range of your household income before taxes last year – including wages, unemployment, Social Security, and all other sources of income?

	Frequency	Valid Percent
Under \$10,000	2,014	11.0
\$10,000 - \$19,999	1,421	7.8
\$20,000 - \$29,999	1,589	8.7
\$30,000 - \$39,999	1,546	8.4
\$40,000 - \$49,999	1,370	7.5
\$50,000 - \$59,999	1,372	7.5
\$60,000 - \$69,999	1,354	7.4
\$70,000 or over	7,630	41.7

7. During the last year, how many people, including you depended on that income?

	Frequency	Valid Percent
1	2,285	12.3
2	5,451	29.3
3	5,411	29.1
4	3,236	17.4
5	1,399	7.5
6	453	2.4
7	189	1.0
8	67	0.4
9	30	0.2
10 or more	65	0.3

BEFORE YOU BECAME PREGNANT

8. In the twelve months prior to becoming pregnant, did a healthcare provider talk to you about any of the things listed below? (mark all that apply)

	Frequency	Valid Percent
Birth control	9,432	49.6
Timing of pregnancy	5,039	26.5
Spacing of children	2,365	12.4
Did not see health care professional	6,268	33.0

9. In the twelve months prior to becoming pregnant, did a doctor, nurse, dental provider, or other health care professional ever talk to you about any of the following topics as they relate to pregnancy? (mark all that apply)

	Frequency	Valid Percent
Taking folic acid or a multivitamin	8,326	43.8
Smoking	5,656	29.8
Drinking alcohol	4,846	25.5
Your weight	4,684	24.6
Regular exercise	5,399	28.4
How romantic relationships affect your health	2,004	10.5
Oral health	4,386	23.1
Did not see health care professional	6,048	31.8

WHEN YOU BECAME PREGNANT

10. Thinking back to the time you became pregnant were you (or your partner) using any form of birth control when you got pregnant? (mark all that apply)

	Frequency	Valid Percent
No birth control used	16,724	88.0
Birth control pills	1,005	5.3
Birth control patch	112	0.6
Diaphragm	43	0.2
Spermicidal foam/insert	36	0.2
Birth control injection	107	0.6
NuvaRing	90	0.5
Condom	477	2.5
NFP or rhythm method	214	1.1
IUD/ParaGard/Mirena/Skyla/Liletta	148	0.8
Implant/Nexplanon	87	0.5
Other	102	0.5

11. Thinking back, just before you became pregnant, did you want to become pregnant at that time?

	Frequency	Valid Percent
Yes, I wanted this pregnancy at an earlier time as well as at that time	6,539	34.9
Yes, I wanted to become pregnant at that time	6,976	37.3
No, I did not want to become pregnant at that time, but I wanted a child sometime in the future	4,506	24.1
No, I did not want to become pregnant at that time or any time in the future	698	3.7

**12. If you did not want to get pregnant, why did you not use any form of birth control?
(mark all that apply)**

	Frequency	Valid Percent
Wanted to get pregnant – SKIP TO Q13	11,090	58.3
Didn't want to ruin the "mood" or was embarrassed	169	2.1
Experienced physical discomfort or side effects	664	8.4
Embarrassed buying or uncomfortable going to health care provider	42	0.5
Against religious beliefs	95	1.2
Judgement impaired due to alcohol and/or drug use	98	1.2
Ran out of birth control	178	2.2
Did not plan to have intercourse	256	3.2
Father wanted child/refused to use birth control	96	1.2
Preferred method too expensive	131	1.7
Birth control failed	953	12.0
Not trying to become pregnant, not actively preventing it	2,630	33.2
Thought I (or partner) could not become pregnant	613	7.7
Other	312	3.9

DENTAL CARE

13. During this pregnancy, did you visit a dentist, dental clinic, or get dental care?

	Frequency	Valid Percent
No	7,892	42.8
Yes – SKIP TO Q15	10,526	57.2

14. What were the reasons that you did not go to a dentist, dental clinic, or get dental care? (mark all that apply)

	Frequency	Valid Percent
I didn't think it was important to get dental check-ups while pregnant	951	11.2
I didn't have dental insurance, or it cost too much	853	10.1
I couldn't find a dentist who would accept my Medicaid/Title 19 coverage	577	6.8
I was nervous or afraid to go to the dentist	487	5.7
I didn't have transportation	146	1.7
I couldn't take time off of work; I was too busy	861	10.2
My doctor or nurse told me not to go to the dentist during pregnancy	23	0.3
Someone in my dentist's office told me to wait until after my pregnancy	105	1.2
I heard or read that it wasn't safe to go to the dentist during pregnancy	167	2.0
I do not routinely go to the dentist, even when I'm not pregnant	1,974	23.3
I went to the dentist before my pregnancy	2,059	24.3
Other	335	4.0

DURING YOUR PREGNANCY

15. Here are a few things that might happen to some women during pregnancy. Please tell us if any of these things happened to you during this pregnancy. (mark all that apply)

	Frequency	Valid Percent
Close family member was sick and hospitalized	2,396	12.6
Got separated or divorced from my husband or partner	506	2.7
Moved to a new address	3,804	20.0
Was homeless (had to sleep outside, in a car, or in a homeless shelter)	163	0.9
Husband or partner lost their job	727	3.8
Lost my job	948	5.0
Argued with husband or partner more than usual	1,584	8.3
Husband or partner said they didn't want me to be pregnant	307	1.6
Had a lot of bills I couldn't pay	1,183	6.2
Was in a physical fight	113	0.6
Husband or partner or I went to jail	355	1.9
Family member or friend had a problem with drinking or drugs	681	3.6
Family member or close friend died	2,809	14.8

16. During your most recent pregnancy, did your health care provider recommend that you receive progesterone to keep your baby from being born too early?
The medication is given in a series of weekly shots called 17p (17 alphahydroxyprogesterone) or Makena or it can be administered in vaginal suppositories.

	Frequency	Valid Percent
Yes, progesterone shots were recommended	703	3.8
Yes, vaginal suppositories were recommended	368	2.0
No - SKIP TO Q18	16,545	90.0
I don't know/Not sure – SKIP TO Q18	761	4.1

17. Did you encounter any of the barriers below in receiving the 17P, Progesterone or Makena shots or suppositories recommended by your health care provider? (mark all that apply)

	Frequency	Valid Percent
Hard to remember to use the suppositories or make appointments for shots	24	2.2
No way to get to the clinic/doctor's office	9	0.8
Couldn't take time off from work/school	11	1.0
Had no one to take care of my children	4	0.4
Medicaid did not cover the medicine	32	3.0
Insurance did not cover the medicine	123	11.5
Doctor was not able to get the medicine	3	0.3
Don't like or was afraid of the shots/injections	40	3.7
Afraid of possible side effects for me or my baby	32	3.0
Could not afford the medication or the co-pay	19	1.8
Too busy to get appointments	11	1.0
Had no major barriers to receiving the medication	661	61.7

18. At any time during this pregnancy, did a doctor, nurse, or other health care worker diagnose you with depression?

	Frequency	Valid Percent
Yes	620	3.4
No – SKIP TO Q21	15,624	85.2
No – Diagnosed with depression before I became pregnant	2,097	11.4

19. At any time during this pregnancy, did you take prescription medicine for your depression?

	Frequency	Valid Percent
Yes	1,458	52.1
No	895	32.0
No, doctor told me to stop taking my medications for depression during pregnancy	131	4.7
No, decided on my own to stop taking my medications for depression during my pregnancy	314	11.2

20. At any time during this pregnancy, did you get counseling for your depression?

	Frequency	Valid Percent
Yes	819	29.2
No	1,986	70.8

21. Have you smoked any cigarettes in the past 2 years?

	Frequency	Valid Percent
Yes	3,612	19.4
No – SKIP TO Q24	14,962	80.6

22. In the 3 months before you got pregnant, how many cigarettes did you smoke on an average day? (If none, fill in 00; a pack has 20 cigarettes)

	Frequency	Valid Percent
Zero cigarettes per day	496	14.0
1-10 cigarettes per day	1,946	54.8
11-20 cigarettes per day	988	27.8
More than 20 cigarettes per day	123	3.5

23. In the last 3 months of your pregnancy, how many cigarettes did you smoke on an average of a day? (If none, fill in 00; a pack has 20 cigarettes)

	Frequency	Valid Percent
Zero cigarettes per day	1,907	53.9
1-10 cigarettes per day	1,434	40.5
11-20 cigarettes per day	177	5.0
More than 20 cigarettes per day	21	0.6

24. Have you used any of the following tobacco products or nicotine delivery systems in the past 2 years? (mark all that apply)

	Frequency	Valid Percent
E-cigarettes or other vaping products	1,484	7.8
Cigars, cigarillos, or little cigars	649	3.4
Pipe	29	0.2
Bidis	0	0.0
Kreteks	0	0.0
Water pipes or hookahs	146	0.8
Other	398	2.1

25. During your most recent pregnancy, how often did someone other than you smoke inside your home?

	Frequency	Valid Percent
Daily	781	4.3
Weekly	173	1.0
Monthly	59	0.3
Less than monthly	260	1.4
Never	16,923	93.0

PRENATAL CARE

The next questions are about the prenatal care that you received during this pregnancy. Prenatal care includes visits to a doctor, nurse, or health care worker before your baby was born for checkups and advice about pregnancy.

26. During any of your prenatal care visits, did a doctor, nurse, dental provider, or other health care professional provide you with information about any of the things listed below? (mark all that apply)

	Frequency	Valid Percent
How smoking during pregnancy could affect my baby	9,671	50.9
Breastfeeding my baby	12,939	68.1
How drinking alcohol during pregnancy could affect my baby	9,374	49.3
Using a seat belt during my pregnancy	7,960	41.9
Medicines that are safe to take during pregnancy	15,451	81.3
How using illegal drugs could affect my baby	7,682	40.4
How using prescription medications could affect my baby	9,208	48.4
Doing tests on me or my baby to screen for birth defects or diseases	14,227	74.9
What to do if feeling depressed during pregnancy/after baby born	10,825	57.0
Physical abuse to women by their husbands/partners	5,690	29.9
Signs and symptoms of preterm labor	11,728	61.7
What to do if labor starts early	12,593	66.3
Count the kicks, monitor movements	15,620	82.2
What to do if baby had not felt as active as expected	13,726	72.2
The Zika virus	5,992	31.5
I was not provided with any of the information listed above	753	4.0

27. Some women experience problems getting prenatal care, while others do not. Here is a list of problems some women can have getting prenatal care.
(mark all that applied during this pregnancy)

	Frequency	Valid Percent
Did not have any problems	17,193	90.5
Couldn't get an appointment when wanted	175	0.9
Difficulty paying for visits	118	0.6
No way to get to doctor's office or clinic	106	0.6
Couldn't take time off work	91	0.5
Doctor or health plan wouldn't start care as early as wanted	48	0.3
Problems signing up for Medicaid/Title 19	143	0.8
Medicaid coverage was dropped during pregnancy	76	0.4
Had no one to take care of my children	71	0.4
Had too many other things going on	81	0.4
Didn't want anyone to know I was pregnant	45	0.2
Some other problem	56	0.3

28. Were you ever refused prenatal care during this pregnancy?

	Frequency	Valid Percent
Yes	148	0.8
No – SKIP TO Q30	18,162	99.2

29. Why were you refused care? (mark all that apply)

	Frequency	Valid Percent
Didn't have insurance	45	5.3
Had problems with insurance	32	3.8
Doctor was not accepting new patients	12	1.4
Unable to find doctor who accepted Medicaid/Title 19	10	1.2
Pregnancy was high risk	28	3.3
Too late in pregnancy to change doctors	15	1.8
Unsure why I was refused care	27	3.2

30. Were you tested for HIV/AIDS during this pregnancy?

	Frequency	Valid Percent
Yes	8,016	43.7
No	5,064	27.6
No – I was offered testing. I did not want to be tested	273	1.5
I don't know	5,005	27.3

31. Were you tested for syphilis during this pregnancy?

	Frequency	Valid Percent
Yes	6,544	35.9
No	4,818	26.4
No – I was offered testing. I did not want to be tested	186	1.0
I don't know	6,690	36.7

32. How many minutes did it usually take you to get to your prenatal care provider?

	Frequency	Valid Percent
1-15 minutes	9,898	56.2
16-30 minutes	5,005	28.4
31-60 minutes	2,349	13.3
More than 60 minutes	370	2.1

HOSPITAL CARE

33. During the first 24 hours following the birth of your baby, did the hospital staff encourage you to breastfeed?

	Frequency	Valid Percent
Yes	15,234	84.1
No	2,402	13.3
Don't remember	472	2.6

34. During your hospitalization, has a doctor, nurse or other healthcare professional discussed the following topics? (mark all that apply)

	Frequency	Valid Percent
Action steps to decrease frustration when baby cries	8,842	46.5
How to lay baby down to sleep	11,313	59.5
Dangers of shaking an infant	8,573	45.1
Did not receive information and have not scheduled a time to discuss these topics	5,087	26.8

35. In which of the following positions do you plan to lay your baby down to sleep most of the time?

	Frequency	Valid Percent
On his or her back	17,174	94.1
On his or her side	292	1.6
On his or her stomach	50	0.3
No preference – whatever seems most comfortable	739	4.0

36. Listed below are some locations or descriptions of where a new baby might sleep. For each one, please mark yes, no or not sure for whether you think your baby will ever sleep in a similar way for naps or at night.

In a crib, bassinet, or portable crib

	Frequency	Valid Percent
Yes	18,099	99.2
No	64	0.4
Not sure	86	0.5

With pillows nearby or under him/her

	Frequency	Valid Percent
Yes	252	1.5
No	16,239	96.0
Not sure	421	2.5

With bumper pads

	Frequency	Valid Percent
Yes	918	5.5
No	15,058	89.4
Not sure	861	5.1

Covered with a loose blanket

	Frequency	Valid Percent
Yes	842	5.0
No	15,353	91.1
Not sure	664	3.9

With stuffed toys

	Frequency	Valid Percent
Yes	100	0.6
No	16,533	98.2
Not sure	203	1.2

In bed with me or another person

	Frequency	Valid Percent
Yes	646	3.8
No	15,290	90.3
Not sure	991	5.9

37. How often do you plan to have your new baby sleep in the same bed, in a reclining chair or on a couch with you or anyone else? Sleeping would include both at night and for naps during the day.

	Frequency	Valid Percent
Daily	1,238	6.9
Weekly	1,081	6.0
Monthly	186	1.0
A few times per year	832	4.6
Do not plan to have baby sleep with me or anyone else	14,702	81.5

38. Were you offered a long acting reversible contraceptive (LARC) device (IUD/implant) after your baby was born?

	Frequency	Valid Percent
Yes	2,956	16.9
No – SKIP TO Q40	14,559	83.1

39. Will you, or have you received a long acting reversible contraceptive (LARC) device (IUD/implant)?

	Frequency	Valid Percent
Yes	1,195	40.8
No	1,735	59.2

40. How many minutes did it take you to travel from your home to the hospital where you delivered your baby?

	Frequency	Valid Percent
1-15 minutes	8,482	47.8
16-30 minutes	5,684	32.0
31-60 minutes	3,077	17.3
More than 60 minutes	514	2.9

41. What is the current month?

	Frequency	Valid Percent
January	1,472	7.8
February	1,480	7.8
March	1,545	8.1
April	1,530	8.1
May	1,576	8.3
June	1,517	8.0
July	1,812	9.5
August	1,900	10.0
September	1,706	9.0
October	1,686	8.9
November	1,450	7.6
December	1,313	6.9